

**(19) World Intellectual Property Organization
International Bureau**



**(43) International Publication Date
17 February 2005 (17.02.2005)**

PCT

(10) International Publication Number
WO 2005/014188 A1

(51) International Patent Classification⁷:
13/00, 13/02, 15/00, C01B 33/24

B07B 9/00.

Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/CA2003/001211

(22) International Filing Date: 8 August 2003 (08.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(26) Publication Language: English

(71) **Applicant (for all designated States except US): FORD-
ING INC. [CA/CA]; #200, 205 - 9th Avenue S.E., Calgary,
Alberta T2G 0R4 (CA).**

(72) Inventor; and
(75) Inventor/Applicant (*for US only*): MCMINN, Neil A.
[CA/CA]; 656 Royalite Way, P.O. Box 242, Turner Valley,
Alberta T0L 2A0 (CA).

(74) **Agents: GARWASIUK, Helen et al.**; 1501 - 10060 Jasper Avenue, Scotia Place, Tower Two, Edmonton, Alberta T5J 3R8 (CA).

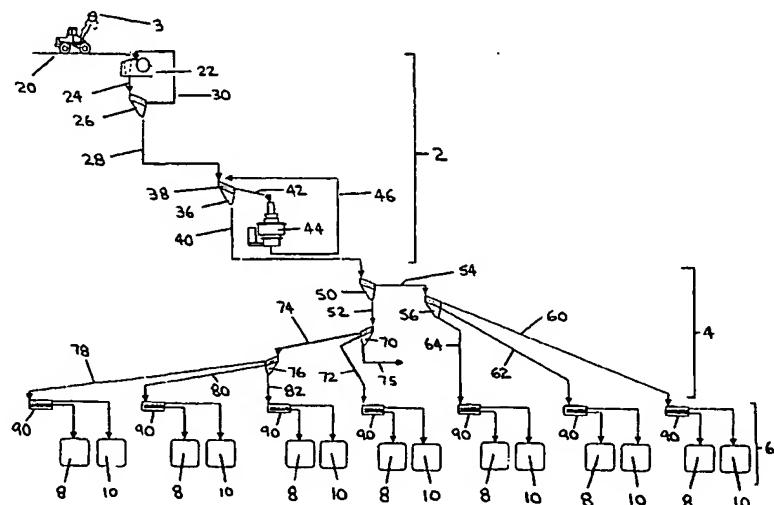
(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RECOVERY PROCESS FOR HIGH ASPECT RATIO MATERIALS



(57) Abstract: Apparatus and process for separating particles of wollastonite ore and other aspect ratio materials into a relatively high aspect ratio constituent and a relatively low aspect ratio constituent includes an initial step of either size reducing (2) the material into particles of the aspect ratio material having a size less than a preselected maximum size or alternatively providing such particles of the aspect ratio material. The particles of the aspect ratio material are then separated (4) into a plurality of particle streams based on particle size such that each particle stream is formed substantially from particles within a particular range of particle sizes. Then, the particles in at least one particle stream are sorted (6) based on particle shape into the relatively high and relatively low aspect ratio constituents. The particle separation step (4) is preferably performed using mesh screening apparatus. The shape sorting step (6) is preferably performed using apparatus for separating grain.